UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: DeStefano et al.

Application: METHOD AND APPARATUS FOR PROVIDING DYNAMIC ASSISTANCE FOR DISABLED USER INTERFACE RESOURCES

Serial No.: 09/519,413

Filing Date: March 3, 2000

Art Unit: 2173

Examiner: Kieu D. Vu

Case: ROC920000010

CERTIFICATE OF MAILING: I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed for Commissioner of Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on

March 7, 2005	*Joan Pennington*	Joan Pennington
Date of Deposit	Signature	Typed/printed name of person signing

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535 North Michigan Avenue
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Chicago, Illinois 60611

Mail Stop **AF**
Honorable Commissioner Of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

AFFIDAVIT UNDER 37 CFR 1.131

We, the inventors, George Francis DeStefano, Anthony Michael Dunbar, and DeVaughn Lawrence Rackham, being duly sworn, depose and state as follows:

1. We are the inventors of claims 1-3, and 5-12 in the above-identified patent application and the inventors of the subject matter described and claimed therein.

2. Prior to February 3, 2000 and during all relevant times during the invention of the subject matter described and claimed in the above-identified patent application, we were employed by International Business Machines Corporation (IBM), the assignee herein, at IBM's development and manufacturing facility in Rochester, Minnesota. The activities relating to the invention of the subject matter of this patent application occurred at this IBM facility.

3. Prior to February 3, 2000, we invented the invention described and claimed in the above-identified patent application. As evidence of invention, we submit Exhibit A, a photocopy of portions of pages 2 and 3 of our invention disclosure which is dated prior to February 3, 2000. The invention disclosure is entitled "Apparatus and method for providing dynamic assistance for disabled user interface resources." All the redacted dates are prior to February 3, 2000 and Exhibit A is a true and correct copy of relevant portions of the document including a description of the invention.

4. Pursuant to our obligation to disclose inventions that are made in the course of our employment with IBM, we disclosed the subject matter of our invention to IBM's Intellectual Property Law department on or before December 17, 1999. Exhibit B is a portion of page 1 of the invention disclosure. Exhibit B is a true and correct copy of this relevant portion of the document.

5. Applicants attorney upon receiving the invention disclosure from IBM's Intellectual Property Law department began preparation of a patent application on the subject matter of the invention and filed the patent application on March 3, 2000.

<u>SIGNATURES:</u>

Inventor (1) George Francis DeStefano Signed

at Rochester, Minnesota

on 3/2/2005

(George Francis DeStefano)

Inventor (2) Anthony Michael Dunbar Signed
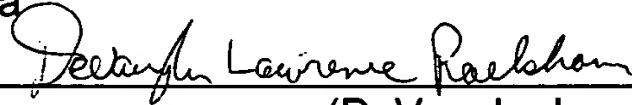
at Rochester, Minnesota
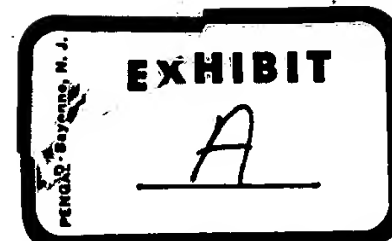
on 3/2/2005

(Anthony Michael Dunbar)

Inventor (3) DeVaughn Lawrence Rackham Signed

at Rochester, Minnesota

on 3/2/2005

(DeVaughn Lawrence Rackham)

Docket No. ROC920000010
Serial No. 09/519,413

Response Due to IP&L :

Main Idea

*Title of disclosure (in English)
Apparatus and method for providing dynamic assistance for disabled user interface resources.

*Idea of disclosure
1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

When designing and implementing a GUI that includes items in a list, context menus are usually provided which allow the user to perform various actions on the items in the list. In many instances, one or more of the menu items may need to be disabled for certain items in the list. In a list of User IDs, for example, the "Delete" action might be disabled for certain restricted system profiles.

The reason a particular menu item is disabled may not be obvious or intuitive to the user of the GUI. This is especially true when multiple items have been selected and the menu item must be disabled due to restrictions that exist on one or more of the selected items. Following the previous example, the "Delete" option might be available when users "Dunbar", "DeStefano", and "Rackham" are selected, but would be disabled when users "Dunbar", "DeStefano", and "QSYS" are selected, since "QSYS" is a restricted profile.

Similarly, options and controls on properties pages and "wizard screens" may need to be disabled for reasons not obvious to the user. Also, similarly - some panels and pages have to have all questions answered before they will perform their function. When all are not answered current technology gives the user a message box with a "You must ..." message.

Current technologies only allow the enabled or disabled states for menu items. A new menu item state, "disabled with assistance", would enable GUI designers and developers to create programs that solve these design and usage problems in a much more intuitive and natural way. When a menu item is changed to "disabled with assistance" state, the menu item would be "grayed out," ideally in a visually distinct manner and accompanied by a distinct audible tone. Just as the current disabled state, it would not be selectable. However, the "disabled with assistance" menu item would also have a live zone added to the end of the menu item. When a user selects this live zone, additional information would be displayed that explains to the user why the menu item or control was disabled.

Additionally, the GUI designer/developer could provide an adjustment button at the end of the explanation text that would change the user's selections so that the menu item becomes enabled and optionally performs the associated action on the remaining selected items. In some applications menu items would be "grayed out" because of options selected or decisions made earlier in a multi-step task. In these instances the GUI designer/developer could provide, instead of the adjustment button, a "where did I go wrong?" button that would take the user to the menu or page where the decision was made and visually highlight the controls with the selections responsible for the disabling. Similarly, the GUI designer/developer could provide a "what did I leave out?" button on the "You must ..." message box. Pressing that button would position the unanswered question(s) in the viewable window and visually highlight them.

2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?

When a large list of items is selected, only one of those items can cause one or more menu actions to be disabled. It can be difficult and frustrating to figure out which item(s) the action is not valid for. Also, since menu items can be disabled for multiple reasons, it can be very difficult for the user to

determine why the action they wish to perform is not available. Without a "disable with assistance" state for menu items and panel/page controls, the GUI designer/developer has to use context sensitive help to try and explain all possible situations that could result in the menu items being disabled.

With a "disable with assistance" state, the specific reason a menu item was disabled would be displayed, making it easy for the user to determine how to proceed. The adjustment button would also simplify the user's task, especially in situations when the user has inadvertently selected items that are restricted from certain actions. When a menu item is disabled, the GUI developer has already written code to determine when the menu item needs to disabled. It would therefore be fairly easy to retrofit existing code to take advantage of a "disable with assistance" state once it was available.

Also, as GUI implementations evolve, the types of items included in existing list controls change and grow. When this occurs, GUI developers have to assess design tradeoffs - they can either break apart and change the existing list containers, which may make it difficult for experienced users to navigate their new release, or they can add the new items to existing list containers with additional context menu items. When the developer chooses to add the new list and associated menu items to existing containers the occurrence of scenarios which cause menu items to be disabled can increase significantly, especially where multiple selection is allowed. A "disable with assistance" state gives the GUI developer an option that eases the transition to a new release for an experienced user, without creating confusion for a new user.

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ROC920000010

Disclosure ROC8-1999-0465

Created By: Tony Dunbar   **Created On**
Last Modified By: **Last Modified On:**

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Required fields are marked with the asterisk (*) and must be filled in to complete the form .

Summary

Status	Final Decision (File / N/A)
Docket Family	ROC9-2000-0010
Processing Location	ROC
Functional Area	▓▓▓▓▓▓▓
Attorney/Patent Professional	
IDT Team	
Submitted Date	12/17/99 02:51:32 PM
Owning Division	SD
PVT Score	
Incentive Program	
Lab	
Technology Code	

Inventors with Lotus Notes IDs

Inventors: Tony Dunbar/Rochester/IBM, George DeStefano/Rochester/IBM, Devaughn Rackham/Rochester/IBM

Inventor Name
> denotes primary contact

Dunbar, Anthony M (Tony)
DeStefano, George F (George)
Rackham, Devaughn L.

Inventors without Lotus Notes IDs

IDT Selection

IDT Team: